

NYMPHALIS VAU-ALBUM (SCHIFFERMULLER &
DENIS), A HOLARCTIC SPECIES
(LEPIDOPTERA: NYMPHALIDAE)¹

BY NICHOLAS W. GILLHAM

Biological Laboratories, Harvard University

The purpose of this paper is to show that *Nymphalis j-album* (Boisduval), long considered a distinct species by North American workers, really represents the Nearctic populations of a Holarctic species correctly designated as *Nymphalis vau-album* (Schiffermuller and Denis).

Nymphalis vau-album (Schiffermuller & Denis)

Papilio vau-album Schiffermuller & Denis, 1775. Ankündigung syst. werkes schmetterlinge Wiener gegend, p. 176; sex not specified. Type locality: "Wiener gegend".

Papilio N.[ymphalis] Ph.[aleratus] L album Esper, 1781. Die schmetterlinge in abbildungen nach der natur beschreibungen, 1 (Bd. 2): 69, pl. 62, contin. 12, figs. 3a & 3b; sex not specified. Type locality: Hungary and Austria.

V[*anessa*] *j-album* Boisduval & Leconte, 1833. Histoire général et iconographie Lépidoptères Amérique septentrionale, 1:185, pl. 50, figs. 1 & 2; sex not specified. Type locality: environs of New York, Philadelphia, and New Harmony, Indiana. NEW SYNONYMY.

Vanessa pocahontas Scudder, 1889. The butterflies of the eastern United States and Canada with special reference to New England, 1:379; proposed in synonymy without description, sex not specified.

Vanessa L. album samurai Fruhstorfer, 1907. Societas Entomologica, 22:60; 2 ♀ ♀, & 4 ♂ ♂. Type locality: Hondo, Japan. NEW SYNONYMY.

Aglais j-album watsoni Hall, 1924. Jour. N. Y. Ent. Soc.,

¹Published with a grant from the Museum of Comparative Zoology at Harvard College.

32:109; holotype ♂ + 5 ♂ ♂ & 3 ♀ ♀. Type locality: Sicamous, B. C., Canada. NEW SYNONYMY.

The name *vau-album* was proposed, together with several other names, in one very limited description by Schiffermuller and Denis in 1775. In addition, there are no figures of the species given and this name could easily be considered a *nomen nudum* as Stichel (1909) has done. However, most of the other names in this volume were proposed in a similar vague fashion and many are presently in general use. Therefore, I have followed the example of Grey, Klots, and dos Passos (1952), as regards this publication, and am considering *vau-album* as validly proposed. Because of this, *L-album* Esper, 1781, falls as a direct synonym of *vau-album* on the basis of priority.

The names *j-album* Boisduval, *watsoni* Hall, and *samurai* Fruhstorfer are synonymized. *J-album* and *watsoni* are the names applied to North American populations of *vau-album*. They differ from the Palearctic populations in that they average slightly smaller² and are more lightly marked along the outer margin of the upperside of the hindwing. These differences are very weak, however, and would probably break down completely when material covering the whole range of the species becomes available. In addition, a comparison of the male genitalia of specimens from the two areas failed to reveal any differences that were not attributable to individual variation.

The name *samurai* applies to populations from the easternmost portions of the Palearctic. This subspecies is supposed to be distinguished from nominotypical *vau-album* by the following characters: ♂ ♂ with richer black designs above and a distinct white band on the underside of the hind wing, ♀ ♀ more darkly marked below and along the basal edge of the hindwing above. These

²The measurement used as an index of relative size was the length of the costa from base to apex as measured with a vernier caliper. Measurements are given to the nearest millimeter and are as follows: Palearctic populations, ♂ ♂ N = 12, Mean = 31 mm., Range = 27-33 mm.; ♀ ♀ N = 4, Mean = 32 mm., Range = 30-33 mm.; Nearctic population, ♂ ♂ N = 19, Mean = 32 mm., Range = 31-55 mm.; ♀ ♀ N = 16, Mean = 33 mm., Range = 30-37 mm.

distinctions are very minor and do not hold up when series are examined.

In the Old World this species ranges from southeastern Europe eastwards across Asia to Kamtchatka, Korea, and Japan. From there it ranges south to Assam and Kashmir. It is found over most of North America from Alaska and Labrador south to West Virginia and Utah (Gertsch, *pers. commun.*).

LITERATURE CITED

GREY, L. P., KLOTS, A. B., and C. F. DOS PASSOS.

1952. The "*niobe/ cydippe/ adippe*" Problem (Class Insecta, Order Lepidoptera, Family Nymphalidae) with suggestions for its Solution. Bull. Zool. Nomen., 6:322-336.

STICHEL, H.

1909. Genus *Polygonia* Hon. In Seitz, A., The Macrolepidoptera of the World, Stuttgart. 1 (the Palearctic Butterflies):206-207.